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<110> Kevin Baker et al.

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Thr Ala Ile Pro Asn Tyr Ser Asn Gly Cys His Gln Cys Arg Lys Cys
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Pro Thr Gly Ser Phe Asp Lys Val Lys Cys Thr Gly Thr Gln Asn Ser
100 105 110

Lys Cys Ser Cys Leu Pro Gly Trp Tyr Cys Ala Thr Asp Ser Ser Gln
115 120 125

Thr Glu Asp Cys Arg Asp Cys Ile Pro Lys Arg Arg Cys Pro Cys Gly
130 135 140

Tyr Phe Gly Gly Ile Asp Glu Gln Gly Asn Pro Ile Cys Lys Ser Cys
145 150 155 160

Cys Val Gly Glu Tyr Cys Asp Tyr Leu Arg Asn Tyr Arg Leu Asp Pro
165 170 175

Phe Pro Pro Cys Lys Leu Ser Lys Cys Asn
180 185

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Met Cys Val Gly Ala Arg Arg Leu Gly Arg Gly Pro Cys Ala Ala Leu
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Leu Leu Leu Gly Leu Gly Leu Ser Thr Val Thr Gly Leu His Cys Val
20 25 30

Gly Asp Thr Tyr Pro Ser Asn Asp Arg Cys Cys His Glu Cys Arg Pro
35 40 45

Gly Asn Gly Met Val Ser Arg Cys Ser Arg Ser Gln Asn Thr Val Cys
50 55 60

Arg Pro Cys Gly Pro Gly Phe Tyr Asn Asp Val Val Ser Ser Lys Pro
65 70 75 80

Cys Lys Pro Cys Thr Trp Cys Asn Leu Arg Ser Gly Ser Glu Arg Lys
85 90 95

Gln Leu Cys Thr Ala Thr Gln Asp Thr Val Cys Arg Cys Arg Ala Gly
100 105 110

Thr Gln Pro Leu Asp Ser Tyr Lys Pro Gly Val Asp Cys Ala Pro Cys
115 120 125

Pro Pro Gly His Phe Ser Pro Gly Asp Asn Gln Ala Cys Lys Pro Trp
130 135 140

Thr Asn Cys Thr Leu Ala Gly Lys His Thr Leu Gln Pro Ala Ser Asn
145 150 155 160

Ser Ser Asp Ala Ile Cys Glu Asp Arg Asp Pro Pro Ala Thr Gln Pro
165 170 175

Gln Glu Thr Gln Gly Pro Pro Ala Arg Pro Ile Thr Val Gln Pro Thr
180 185 190

Glu Ala Trp Pro Arg Thr Ser Gln Gly Pro Ser Thr Arg Pro Val Glu
195 200 205

Val Pro Gly Gly Arg Ala Val Ala Ala Ile Leu Gly Leu Gly Leu Val
210 215 220

Leu Gly Leu Leu Gly Pro Leu Ala Ile Leu Leu Ala Leu Tyr Leu Leu
225 230 235 240

Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly
245 250 255

Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser
260 265 270

Thr Leu Ala Lys Ile
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Pro Cys Gln Glu Lys Asp Tyr His
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Gly Lys Glu Cys Thr Phe Ser Cys
1 5

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Gly Cys Asn Asn Ser Ser Trp Ile
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Phe Glu Phe Phe Ile Gln Asn Asp
1 5

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Gly Ser His Ser Val Met Leu Lys
1 5

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Thr Ile Glu Gly Val Ala Tyr Thr
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Ser Gln Phe Ser Gly Ser Ser Glu
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Glu Glu Gly Lys Thr Gln Ile Met
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Asp Gly Thr Lys Glu Cys Arg Pro
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Asp Gly Met Asn Gly Trp Glu Val
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Pro Gly Phe Lys Pro Pro Thr Ser
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Tyr Phe Met Val Asp Ile Asn Arg
1 5

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Gln Cys Gln Asp Asn Arg Arg Phe
1 5

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Lys Asn Asn Gln Asp His Ser Val
1 5

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Cys Gly His Glu Gly Lys Lys Met
1 5

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Asp Thr Phe Ile Gly Val Thr Val
1 5

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Phe Phe Tyr Lys Ser Ser Thr Ala
1 5

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Ile Ser Val Pro Ser Lys Cys Pro
1 5

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Arg Gly Phe Gln Glu Thr Leu Tyr
1 5

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Lys Asn Gln Lys Lys Lys Lys Thr
1 5

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Lys Asn Gln Lys Leu Glu Tyr Lys
1 5

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Leu Ala Thr Lys Glu Lys Glu Asp
1 5

<210> 29
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Met Ala Pro Trp Asn Val Leu Pro Gly Pro His Phe Pro His Ser Ser
1 5 10 15

Arg Leu His Gly Ser Gly His Ser Arg Leu Ala Ala Ala Ala Ile Ser
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Ile Ala Leu Lys Ala Phe Ser Cys Ala Ser Gly
35 40

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<400> 30

Thr Ile Glu Glu Glu Gly Ser Ser Glu
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<400> 31

Cys Thr Glu Arg Pro Pro Cys Thr Thr Lys Asp Tyr Phe Gln Ile His
1 5 10 15

Thr Pro Cys Asp Glu Glu Gly Lys Thr Gln Ile Met Tyr Lys Trp Ile
20 25 30

Glu Pro Lys Ile Cys Arg Glu Asp Leu Thr Asp Ala Ile Arg Leu Pro
35 40 45

Pro Ser Gly Glu Lys Lys Asp Cys Pro Pro Cys Asn Pro Gly Phe Tyr
50 55 60

Asn Asn Gly Ser Ser Ser Cys His Pro Cys
65 70

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<400> 32

Thr Lys Gly Trp Trp Ile Ile Ser Gly Ser Ser Ser Leu Arg Arg Thr
1 5 10 15

Phe Lys His Ala Phe Cys Ser Thr Phe Ala Ala Glu Cys
20 25

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<400> 33

Phe Lys Met Asp Gly Ile Ile Tyr Ser Lys Arg Phe Lys His Ile Thr
1 5 10 15

Ile Val Met Trp Thr Gln Cys Leu Gln Arg Val Trp Thr Gly Met Ile
20 25 30

Lys Pro Pro
35

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<400> 34

Gln Asp Asn Arg Pro Ile Pro Pro Leu Ser Ile Ser Ile Val Pro Tyr
1 5 10 15

Val Ser Ile Val Ala Gly Leu Ile Leu Trp Ile Ser Ile Asp Val Thr
20 25 30

Phe Pro Arg Arg Phe
35

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<211> 78
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<400> 35

Lys Asn Gln Lys Leu Glu Tyr Lys Tyr Ser Lys Leu Val Met Thr Thr
1 5 10 15

Asn Ser Lys Glu Cys Glu Leu Pro Ala Ala Asp Ser Cys Ala Ile Met
20 25 30

Glu Gly Glu Asp Asn Glu Glu Glu Val Val Tyr Ser Asn Lys Gln Ser
35 40 45

Leu Leu Gly Lys Leu Lys Ser Leu Ala Thr Lys Glu Lys Glu Asp His
50 55 60

Phe Glu Ser Val Gln Leu Lys Thr Ser Arg Ser Pro Asn Ile
65 70 75

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<211> 46
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<400> 36
gcagcacata tgggggacct gccctcctcc tccagccgcc cgcttc 46

<210> 37
<211> 46
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<400> 37
gcagcaacta gtttagtcaa ccgtttcaca ggttgccaac tttttc 46

<210> 38
<211> 42
<212> DNA
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<400> 38
gcagcaggta cctcatatat ttggggatct tgaggttttc ag 42

<210> 39
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<400> 39
gcagcaagat ctccgccatc atgctgttcc gcgcccgggg gccggtac 48

<210> 40
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<400> 40
gcagcacata tgctgttccg cgcccgg 27

<210> 41
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<212> DNA
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<400> 41
cgcactagtt caagcgtagt ctgggacgtc gtatgggtag ttgaacagat tcaaaatgg 59

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aattcgaggg tgcaccgtca gtcttcctct tcccccaaa acccaaggac accctcatga 120

tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg 180

tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240

aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300

ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg 360

agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420

catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480

atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540

ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg 600

acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660

acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720

gactctagag gat 733

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<400> 43

Met Lys Asn Gln Val Cys Ser Lys Cys Gly Glu Gly Thr Tyr Ser Leu
1 5 10 15

Gly Ser Gly Ile Lys Phe Asp Glu Trp Asp Glu Leu Pro Ala Gly Phe
20 25 30

Ser Asn Ile Ala Thr Phe Met Asp Thr Val Val Gly Pro Ser Asp Ser
35 40 45

Arg Pro Asp Gly Cys Asn Asn Ser Ser Trp Ile Pro Arg Gly Asn Tyr
50 55 60

Ile Glu Ser Asn Arg Asp Asp Cys Thr Val Ser Leu Ile Tyr Ala Val
65 70 75 80

His Leu Lys Lys Ser Gly Tyr Val Phe Phe Glu Tyr Gln Tyr Val Asp

85 90 95

Asn Asn Ile Phe Phe Glu Phe Phe Ile Gln Asn Asp Gln Cys Gln Glu
100 105 110

Met Asp Thr Thr Thr Asp Lys Trp Val Lys Leu Thr Asp Asn Gly Glu
115 120 125

Trp Gly Ser His Ser Val Met Leu Lys Ser Gly Thr Asn Ile Leu Tyr
130 135 140

Trp Arg Thr Thr Gly Ile Leu Met Gly Ser Lys Ala Val Lys Pro Val
145 150 155 160

Leu Val Lys Asn Ile Thr Ile Glu Gly Val Ala Tyr Thr Ser Glu Cys
165 170 175

Phe Pro Cys Lys Pro Gly Thr Phe Ser Asn Lys Pro Gly Ser Phe Asn
180 185 190

Cys Gln Val Cys Pro Arg Asn Thr Tyr Ser Glu Lys Gly Ala Lys Glu
195 200 205

Cys Ile Arg Cys Lys Asp Asp Ser Gln Phe Ser Glu Glu Gly Ser Ser
210 215 220

Glu Cys Thr Glu Arg Pro Pro Cys Thr Thr Lys Asp Tyr Phe Gln Ile
225 230 235 240

His Thr Pro Cys Asp Glu Glu Gly Lys Thr Gln Ile Met Tyr Lys Trp
245 250 255

Ile Glu Pro Lys Ile Cys Arg Glu Asp Leu Thr Asp Ala Ile Arg Leu
260 265 270

Pro Pro Ser Gly Glu Lys Lys Asp Cys Pro Pro Cys Asn Pro Gly Phe
275 280 285

Tyr Asn Asn Gly Ser Ser Ser Cys His Pro Cys Pro Pro Gly Thr Phe
290 295 300

Ser Asp Gly Thr Lys Glu Cys Arg Pro Cys Pro Ala Gly Thr Glu Pro
305 310 315 320

Ala Leu Gly Phe Glu Tyr Lys Trp Trp Asn Val Leu Pro Gly Asn Met
325 330 335

Lys Thr Ser Cys Phe Asn Val Gly Asn Ser Lys Cys Asp Gly Met Asn
340 345 350

Gly Trp Glu Val Ala Gly Asp His Ile Gln Ser Gly Ala Gly Gly Ser
355 360 365

Asp Asn Asp Tyr Leu Ile Leu Asn Leu His Ile Pro Gly Phe Lys Pro
370 375 380

Pro Thr Ser Met Thr Gly Ala Thr Gly Ser Glu Leu Gly Arg Ile Thr
385 390 395 400

Phe Val Phe Glu Thr Leu Cys Ser Ala Asp Cys Val Leu Tyr Phe Met

405 410 415

Val Asp Ile Asn Arg Lys Ser Thr Asn Val Val Glu Ser Trp Gly Gly
420 425 430

Thr Lys Glu Lys Gln Ala Tyr Thr His Ile Ile Phe Lys Asn Ala Thr
435 440 445

Phe Thr Phe Thr Trp Gly Ile Pro Arg Glu Leu Ile Gln Gly Pro Arg
450 455 460